FINDING OF NO SIGNIFICANT IMPACT/RATIONALE

DOI-BLM-NM-P010-2010-082-EA

FINDING OF NO SIGNIFICANT IMPACT: I have reviewed this environmental assessment including the explanation and resolution of any potentially significant environmental impacts. I have determined the proposed action will not have significant impacts on the human environment and that preparation of an Environmental Impact Statement (EIS) is not required.

Rationale for Recommendations: The proposed action would not result in any undue or unnecessary environmental degradation. The proposed action will be in compliance with the 1007 Roswell Resource Management Plan and Record of Decision and the 2001 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management.

/s/ J H Parman 9/3/2010
J H Parman Date
Assistant Field Manager, Resources

Proposed Decision: It is my decision to implement the proposed action as described in DOI-BLM-NM-P010-2010-082-EA and issue grazing permits for allotments analyzed in this document. The mitigation measures identified in the attached EA have been formulated into terms and conditions that will be attached to the grazing permits. This decision incorporates, by reference, those conditions identified in the attached Environmental Assessment. A summary table follows.

Allotment Number	Allotment Name	Acres of Public Land	Percent Public Land	Animal Units Authorized	Animal Unit Months Authorized	Permitted Animal Units	Permitted Animal Unit Months
63026	Carrizo Creek	80	100	2	24	2	24
63027	Blanchard Canyon	80	100	2	24	2	24
63071	Lamay Place	80	100	2	15	2	15
63211	Nogal	50	100	1	12	1	12
Totals		290		7	75	7	75

Rationale: Based on the rangeland health assessments (RHAs) and previous monitoring, resource conditions on these allotments are sufficient and sustainable to support the level of use outlined in the ten (10) year grazing permit.

The Proposed Action is in conformance with the 1997 Roswell Resource Management Plan, and the 2001 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management.

Right of Protest and Appeal: If you wish to protest this proposed decision, you are allowed 15 days from receipt of this notice within which to file a protest with the Field Manager, Bureau of Land Management, 2909 West 2nd, Roswell, NM 88201, under Sec. 43 CFR 4160.1 and 4160.2. This protest should specify, clearly and concisely, why you think the proposed action is in error.

In the absence of a protest within the time allowed, the above decision shall constitute my final decision, in accordance with 43 CFR 4160.3 (a). In accordance with 43 CFR 4160.3(b) upon a timely filing of a protest, after a review of protests received and other information pertinent to the case, the authorized officer shall issue a final decision.

Any applicant, permittee, lessee or other person whose interest is adversely affected by the final decision may file an appeal in accordance with 43 CFR 4.470 and 43 CFR 4160.4. The appeal must be filed within 30 days following receipt of the final decision, or within 30 days after the date the proposed decision becomes final as provided for in 43 CFR 4160.3(a). The appeal may be accompanied by a petition for a stay of the decision. The appeal and petition for a stay must be filed in the office of the authorized officer, as noted above. The appeal shall clearly and concisely state the reasons why the appellant thinks the final decision is in error, and otherwise complies with the provisions of 43 CFR 4.470.

Appeals can be filed at the following address:

Field Office Manager
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, NM 88201

_____ _____

J H Parman — Date
Assistant Field Manager, Resources

ENVIRONMENTAL ASSESSMENT

GRAZING AUTHORIZATIONS

For

ALLOTMENTS
(63026, 63027, 63071, 63211)

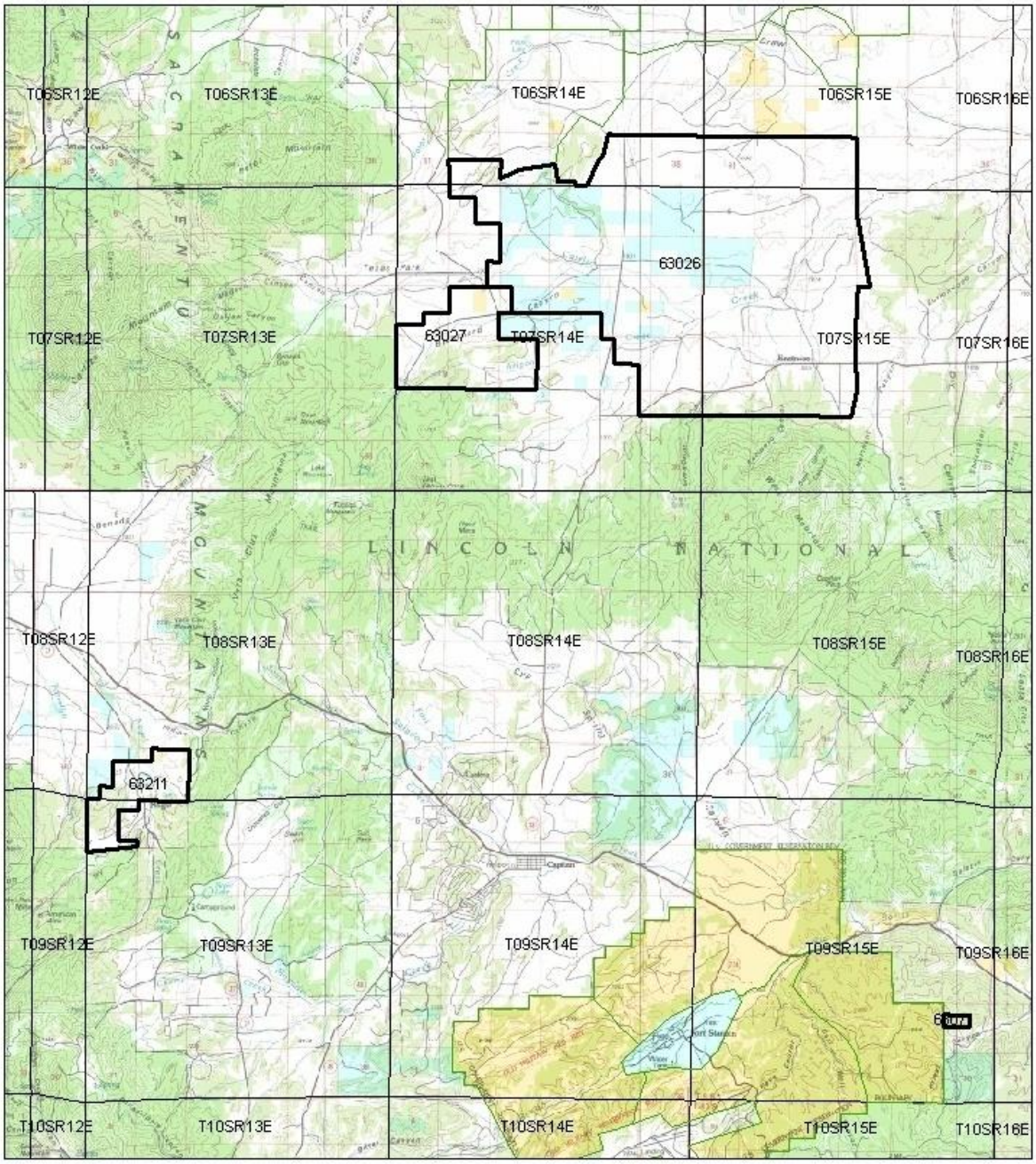
Capitan Area west of Roswell
(See Map)

DOI-BLM-NM-P010-2010-0082-EA

March 2010

U.S. Department of the Interior
Bureau of Land Management
Roswell Field Office
Roswell, New Mexico

Allotments
63026 - 63027 - 63071 - 63211



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for the purposes not intended by BLM. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.

I. BACKGROUND

A. Purpose and Need for the Proposed Action

The purpose of issuing a new grazing lease would be to authorize livestock grazing on public range on Allotments #63026, #63027, #63071, #63211. When authorizing livestock grazing on public range, the Bureau of Land Management (BLM) must conduct a site-specific NEPA analysis before issuing a lease to authorize livestock grazing. This environmental assessment fulfills the NEPA requirement by providing the necessary site-specific analysis of the effects of issuing a new grazing lease on these allotments. The lease would be needed to specify the types and levels of use authorized, and the terms and conditions of the authorization pursuant to 43 CFR §§4130.3, 4130.3-1, 4130.3-2, and 4180.1.

The scope of this environmental assessment is limited to the effects of issuing a new grazing lease on these allotments. Over time, the need could arise for subsequent management activities which relate to grazing authorization. These activities could include vegetation treatments (e.g., prescribed fires, herbicide projects), range improvement projects (e.g., fences, water developments), and others. Future rangeland management actions related to livestock grazing would be addressed in project-specific NEPA documents as they are proposed.

Though this environmental assessment specifically addresses the impacts of issuing a grazing lease on these allotments, it does so within the context of overall BLM management goals. Allotment management activities would have to be coordinated with projects intended to achieve those other goals. For example, a vegetation treatment designed to enhance watershed condition or wildlife habitat may require rest from livestock grazing for one or more growing seasons. Requirements of this type would be written into the permit as terms and conditions.

B. Conformance with Land Use Planning

The proposed action conforms to the Roswell Approved Resource Management Plan (RMP) and Record of Decision (BLM 1997) as required by 43 CFR 1610.5-3 and 2001 New Mexico Standers for Public Land Health and Guidelines for Livestock Grazing Management EIS

C. Relationships to Statutes, Regulations, or Other Plans

The proposed action and alternatives are consistent with the 1994 Environmental Impact Statement for Rangeland Reform; Federal Land Policy and Management Act of 1976 (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), as amended; the Clean Water Act (33 U.S.C. 1251 et seq.), as amended; the Endangered Species Act (16 U.S.C. 1535 et seq.) as amended; the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); Executive Order 11988, Floodplain Management; and Executive Order 11990, Protection of Wetlands.

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action - Current Livestock Management

The proposed action is to issue a ten-year lease to graze cattle on these allotments (See Table 1.). Current permitted use is based on long-term monitoring and rangeland conditions. Additionally Rangeland Health Assessments have been completed and all allotments meet the Standards for Public Land Health.

Table 1. Animal Units/Animal Unit Months

Allotment Number	Allotment Name	Acres of Public Land	Percent Public Land	Animal Units Authorized	Animal Unit Months Authorized	Permitted Animal Units	Permitted Animal Unit Months
63026	Carrizo Creek	80	100	2	24	2	24
63027	Blanchard Canyon	80	100	2	24	2	24
63071	Lamay Place	80	100	2	15	2	15
63211	Nogal	50	100	1	12	1	12
Totals		290		7	75	7	75

There would be no changes from current livestock management as conducted by the permittees, or to existing range improvements already in place. Future projects or activities identified by the permittees or BLM can still be considered for implementation. Rangeland monitoring would continue on these allotments and changes to livestock management would be made as necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken to mitigate those impacts.

Because of the small amount and percentage of BLM public land, the BLM does not set the stocking rate for the entire allotment, but only bills the lessee for the number of animals the public land can support. See Table 1 for the current billed livestock numbers for the allotments.

B. No Grazing Alternative

Under this alternative a new grazing permit would not be issued for these allotments. No grazing would be authorized on Federal land on these allotments under this alternative. Under this alternative and based on the land status pattern within these allotments, new fences would be required to exclude grazing on the Federal land.

C. Alternatives Considered But Not Analyzed

Grazing with reduced numbers – BLM considered authorizing grazing with reduced numbers on these allotments. Grazing with reduced numbers would produce impacts similar to the proposed action. Additionally, these allotments meet the Standard for Public Land Health and monitoring studies do not indicate changes are necessary. Therefore, BLM will not further analyze this alternative.

III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

A. General Setting

These allotments consist of small scattered tracts of public land and are located outside the grazing district boundary in the western portion of the Roswell Field Office.

Elevations range from about 6,250 feet in allotment 63026 to about 6,900 feet in allotment 63027.

The climate is semi-arid with normal annual temperatures ranging from 20^0F to 95^0F. Average annual precipitation is approximately 12.6 inches.

B. Affected Resources

The following resources or values are not present or would not be affected by the authorization of livestock grazing on these allotments: Areas of Critical Environmental Concern, Cultural Resources, Floodplains, Native American Religious Concerns, Prime or Unique Farmland, Minority/Low Income Populations, Hazardous or Solid Wastes, Threatened and Endangered Species, Visual Resources, Wild and Scenic Rivers, and Wilderness.

Cultural resources are not usually adversely affected by livestock grazing. Although concentrated livestock activity such as around livestock water troughs can have adverse effects on the cultural resource. As such all livestock water troughs should not be located within 100 feet of a known archaeological site. Prior to authorizing range improvements, a Class III Cultural Survey must be completed ensuring cultural resources will not be affected.

There are no known resident populations of threatened or endangered species on these allotments. A list of federal threatened, endangered, and candidate species reviewed for this EA can be found in Appendix 11 of the Roswell RMP (AP11-2).

Affected resources and the impacts resulting from livestock grazing are described below.

1. Livestock Management

In the past, these allotments have been authorized to be grazed by cattle yearlong. Grazing is by a cow/calf operation.

These allotments contain approximately 290 BLM acres (see Location Map). Current range improvement projects for the management of livestock include earthen tanks, wells, and several drinking troughs with associated pipelines, pasture and boundary fences.

These allotments are all “C” (Custodial) category due to small amounts of public land present with potential for resource improvement.

2. Soil

The Soil Conservation Service, now the Natural Resource Conservation Service (NRCS), has surveyed the soils in Lincoln County. Complete soil information is available in the *Soil Survey of Lincoln County, New Mexico, (USDA Soil Conservation Service 1983)*. The soil map units represented in the project area are:

Darvey-Asparas association, 0 to 5 percent slopes (8) Runoff of the Darvey soil is medium. Permeability is moderate. The hazard of water erosion is moderate. The hazard of soil blowing is high. Runoff of the Asparas soil is medium. Permeability is moderately slow. The hazard of water erosion is moderate. The hazard of soil blowing is high.

Deama-Rock outcrop association, very steep (14) Permeablity in the Deama soils is moderate in this very shallow and shallow soil. Runoff is rapid and the hazard of water erosion is high. The hazard of soil blowing is slight. Rock outcrop consists of areas of exposed limestone. Surface runoff is rapid.

Gabaldon silt loam, 0 to 2 percent slopes (19) Permeability is moderate. Runoff is medium, hazard of water erosion is moderate, and the hazard of soil blowing is high.

Mokiak-Stroupe-Rock outcrop association, very steep 5 to 50 percent slopes (37) Runoff of the Mokiak soil is rapid, and the hazard of water erosion is high. The hazard of soil blowing is slight. Permeability is moderate. Runoff of the Stroupe soil is slow, the hazard of water erosion is high. The hazard of soil blowing is slight. Permeability of the Stroupe soil is slow.

Pena-Hogadero association, hilly 1 to 30 percent slopes (59). Permeability of the Pena soil is moderate. Runoff is medium, hazard of water erosion is moderate, and the hazard of soil blowing is moderate. Permeability of the Hogadero soil is moderate. Runoff is medium, hazard of water erosion is moderate, and the hazard of soil blowing is moderate.

Reventon-Sampson association, gently sloping 0 to 5 percent slopes (72) Permeability of the Reventon soil is moderately slow. Runoff is medium, the hazard of water erosion is moderate, and the hazard of soil blowing is moderate. Permeability of the Sampson soil is moderate. Runoff is medium, and the hazard of water erosion is moderate, and the hazard of soil blowing is high.

Tortugas-Rock outcrop association, extremely steep (91). The Tortugas soil is very shallow and shallow and is well drained. Permeability is moderate with an effective rooting depth of 6 to 20 inches. Available water capacity is very low. Runoff is rapid, and the hazard of water erosion is high.. Slopes are from 15 to 75 %. Again Rock outcrop consists of areas of exposed limestone where surface runoff is rapid.

Tortugas-Ruidoso-Rock outcrop association, very steep 0 to 50 percent slopes (92) Permeability of the Tortugas soil is moderate. Runoff is rapid, the hazard of water erosion is high, and the hazard of soil blowing slight. Permeability of the Ruidoso soil is slow. Runoff is rapid, the hazard of water erosion is high, and the hazard of soil blowing is high.

3. Vegetation

The allotments are comprised of several vegetation community types arranged in a mosaic over the allotments. Pinion Juniper (PJ), grasslands, shrubs, and half shrub communities are present on these allotments. There are small inclusions of Drainages, Draws and Canyons (DDC) associated with the draws running through the allotments.

Grassland and Mixed Desert Shrub (MDS) communities are intermixed with all community types. Sand dropseed, three-awn, black grama, burrograss, blue grama, sideoats grama, vine mesquite, New Mexico feather grass, burrograss, and tobosa are common throughout the allotments. Alkali sacaton is the dominant species in the bottomlands. Shrub communities contain catclaw mimosa, creosote, mesquite, ephedra, white thorn acacia, and skunkbush.

The DDC Community is comprised of the major drainages crossing the allotments, including Blachard Canyon and Carrizo Creek..

General objectives or guidelines for each vegetation community are described in the Roswell Approved RMP and Record of Decision (BLM 1997) and the Roswell Draft RMP/EIS (BLM 1994).

Public lands are found on the following ecological sites: Bottom land CP-3, Hills CP-3, Loamy CP-3, Swale CP-3, Limestone Hills CP-3 and Very Shallow CP-4. These Ecological site descriptions are available for review at the Roswell BLM office or any Natural Resources Conservation Service office. These descriptions may also be accessed at www.nm.nrcs.usda.gov.

Inventory transect sites are established on all four allotments. Most recent monitoring data was collected in year 2010. The current vegetative data indicates a consistent composition in the grass species to forbs and shrubs.

4. Wildlife:

These allotments provide habitat for small animals, birds, rodents, and a sustainable population of mule deer *(Odocoileus hemionus)* and pronghorn *(Antilocapra americana).* The area does contain brush or tree species that could provide quality cover for larger animals. Other game species occurring within this area include mourning dove *(Zenaida macroura),* and scaled quail *(Callipepla squamata).* Raptors that utilize this area on a more seasonal basis include Swainson's hawk *(Bύrteo swáinsoni*), red-tailed hawk *(Buteo jamacensis),* ferruginous hawk *(Buteo regalis),* American kestrel *(Fálco sparvérius),* and great-horned owl *(Bubo virginianus).* Numerous passerine birds utilize grassland areas due to a variety of grasses, forbs, and shrubs. Most common include the western meadowlark *(Sturnella neglecta),* mockingbird *(Mimus polyglottos),* horned lark *(Eremophila alpestris),* killdeer *(Charadrius vociferus),* loggerhead shrike *(Lanius ludovicianus),* and vesper sparrow *(Pooecetes gramineus).*

This warm prairie environment supports a large number of reptile species. More common reptiles include short-horned lizard *(Phrynosoma douglasii),* lesser earless lizard *(Holbrookia maculata),* eastern fence lizard *(Sceloporus undulatus),* coachwhip *(Masticophis flagellum),* bullsnake *(Pituophis melanoleucus sayi),* prairie rattlesnake *(Crotalus v. viridis),* and western rattlesnake *(Crotalus viridis).*

5. Watershed – Hydrology

The watershed and hydrology in the area is affected by land and water use practices. The degree to which hydrologic processes are affected by land and water use depends on the location, extent, timing and the type of activity. Factors that currently cause short-lived alterations to the hydrologic regime in the area include livestock grazing management, recreational use activities, groundwater pumping and also oil and gas developments such as well pads, permanent roads, temporary roads, pipelines, and powerlines.

6. Water Quality Drinking/Ground

No perennial surface water is found on public land on these allotments. Fresh water sources are in Quaternary Alluvium and San Andres Formation. Depth to fresh water has been found at approximately 180 feet in Quaternary Alluvium. Depth to fresh water has been found from approximately 250 feet to 500 feet in San Andres Formation (New Mexico State Engineer Office data).

7. Air Quality

These allotments are in a Class II area for the Prevention of Significant Deterioration of air quality as defined in the public Clean Air Act. Class II areas allow a moderate amount of air quality degradation. The primary sources of air pollution are dust from blowing wind on disturbed or exposed soil and exhaust emissions from motorized equipment. Air quality in the area is generally good and is not located in any of the areas designated by the Environmental Protection Agency as "non-attainment areas" for any listed pollutants regulated by the Clean Air Act (CAA).

8. Recreation

Since these allotments have no facility-based recreational activities, only dispersed recreational opportunities occur on this land. Recreational activities that may occur include hunting, caving, sight-seeing, off highway vehicle use, primitive camping, horseback riding and hiking.

Off Highway Vehicle designation for public land within these allotments is classified as "Limited" to existing roads and trails.

9. Cave/Karst

These allotments are located within a designated area of high karst and cave potential. A complete significant cave or karst inventory has not been completed for public land located on these allotments. No significant caves or karst features are known to exist within this allotment.

10. Noxious and Invasive Weeds

A noxious weed is defined as a plant that causes disease or has other adverse effects on human environment and is, therefore, detrimental to public health and to agriculture and commerce of

the United States. Generally, noxious weeds are aggressive, difficult to manage, parasitic, are carriers or hosts of harmful insects or disease, and are either native, new to, or not common in the United States. In most cases, however, noxious weeds are non-native species.

The list currently includes the following weeds: 1) African rue *(Peganum harmala),* 2) black henbane *(Hyoscyamus niger),* 3) bull thistle *(Cirsium vulgare),* 4) camelthorn *(Alhagi pseudalhagi),* 5) Canada thistle *(Cirsium arvense),* 6) dalmatian toadflax *(Linaria genistifolia ssp. Dalmatica),* 7) goldenrod, *(Solidago Canadensis)* 8) leafy spurge *(Euphorbia esula),* 9) Malta starthistle *(Centaurea melitensis),* 10) musk thistle *(Carduus nutans),* 11) poison hemlock *(Conium maculatum),* 12) purple starthistle *(Centaurea calcitrapa),* 13) Russian knapweed *(Centaurea repens),* 14) Scotch thistle *(Onopordum acanthium),* 15) spotted knapweed *(Centaurea maculosa),* 16) teasel *(Dipsacus fullonum),* 17) yellow starthistle *(Centaurea solstitialis),* 18) yellow toadflax *(Linaria vulgaris),* 19) Russian olive *(Elaeagnus angustifolia),* 20) Saltcedar *(Tamarix chinensis),* 21) Siberian elm *(Ulmus pumila).*

Of the noxious weeds listed, the ones with known populations in the Roswell Field Office are African rue, non-native thistles *(Cirsium* spp.) such as bull thistle and Canada thistle, leafy spurge, goldenrod, Malta starthistle, Russian knapweed, Russian olive, Siberian elm, poison hemlock, teasel, musk thistle and Scotch thistle. Also "problem weeds" of local concern are cocklebur *(Xanthium* spp.*),* buffalobur *(Curcurbita foetidissima)* and spiny cocklebur *(Xanthium spinosum).* "Problem weeds" are those weeds which may be native to the area but whose populations are out of balance with other local flora.

Infestations of noxious weeds can have a disastrous impact on biodiversity and natural ecosystems. Noxious weeds affect native plant species by out-competing native vegetation for light, water and soil nutrients. Noxious weeds cause estimated losses to producers $2 to $3 billion annually. These losses are attributed to: (1) Decreased quality of agricultural products due to high levels of competition from noxious weeds; (2) decreased quantity of agricultural products due to noxious weed infestations; and (3) costs to control and/or prevent the noxious weeds.

Noxious weeds can negatively affect livestock and dairy producers by making forage either unpalatable or toxic to livestock, thus decreasing livestock productivity and potentially increasing producers' feed and animal health care costs. Increased costs to operators are eventually borne by consumers.

Noxious weeds also affect recreational uses, and reduce realty values of both directly influenced and adjacent properties.

Recent federal legislation has been enacted requiring state and county agencies to implement noxious weed control programs. Monies would be made available for these activities from the federal government, generated from the federal tax base. Therefore, all citizens and taxpayers of the United States are directly affected when noxious weed control prevention is not exercised.

IV. Environmental Impacts

A. Impacts of the Proposed Action

1. Livestock Management:

No adverse impacts are anticipated under this proposed action. If future monitoring studies indicate a need for an adjustment in livestock numbers, this determination will be made in accordance with established protocols.

Under the Proposed Action, livestock would continue to graze public land within these allotments. Existing pasture configurations and water developments would remain the same. Livestock management would still follow the single-herd rotation system.

Because of the small amount and percentage of BLM public land, the BLM does not set the stocking rate for the entire allotment, but only bills the lessee for the number of animals the public land can support.

Under No Grazing Alternative, there would be no livestock grazing authorized on public land. Public land would have to be fenced apart from private and state otherwise livestock would be considered in trespass if found grazing on public land (43 CFR 4140.1(b)(1)). Exclusion of livestock from public land would require new fence. This expense would be borne by the private landowner. Intermingled land status on this allotment makes it economically unfeasible to fence out public land and use only private land. Range improvements on public land would not be maintained and the BLM would have to compensate the permittee if any of the improvements were cost shared at the time of their authorization.

Under the No Grazing Alternative, the overall livestock operation would be reduced by the AU's attached to public land (see Table 1.). This could have adverse economic impacts on all permittees.

Cumulative impacts of the grazing and no grazing alternatives were analyzed in Rangeland Reform '94 Draft Environmental Impact Statement (BLM and USDA Forest Service 1994) and in the Roswell Resource Area Draft RMP/EIS (BLM 1994). The No Livestock Grazing alternative was not selected in either document.

2. Soil

Under the Proposed Action, grazing activities will continue to have some impact to soil. These impacts may include: removal of standing vegetation and litter; soil compaction along livestock trails or soil compaction may occur if livestock are concentrated during prolonged periods when soil is wet. These effects can lead to reduced infiltration rates and increased runoff. Reduced vegetative cover and increased runoff can result in higher erosion rates and soil losses, making it more difficult to produce forage and to protect soil from further erosion. These adverse effects can be greatly reduced by maintaining adequate vegetative cover on the soil.

Proper utilization levels and grazing distribution patterns are expected to retain sufficient vegetative cover on this allotment as a whole and this would maintain the soil stability.

Soil compaction and excessive vegetative use would occur at small, localized areas such as drinking locations, along trails and at bedding areas. Positive effects from this proposed action include speeding up of nutrient cycling process and chipping of soil crust by hoof action may stimulate seedling growth and water infiltration.

Under the No Grazing Alternative soil compaction would be reduced on this allotment around old trails and bedding grounds. There would be a small reduction in soil loss on this allotment.

3. Vegetation

Under the Proposed Action, vegetation would continue to be grazed and trampled by domestic livestock as well as other herbivores. Ecological condition and trend is expected to remain stable and/or improve over the long term with the proposed authorized number of livestock and existing pasture management. Rangeland monitoring data indicates that there is an adequate amount of forage for multiple resource use objectives.

Under the No Grazing Alternative, no impacts to vegetation resources would occur on public lands from authorized livestock grazing. Vegetation will continue to be utilized by wildlife. Vegetation cover would increase over the long term in some areas. Grasslands in the uplands would increase in cover and composition, but composition would be tempered by mesquite somewhat dominating the shrub component. Alkali sacaton in the bottomlands would, in the short term, increase in cover and composition but would then taper off in the long term, becoming decadent from the lack of standing vegetation removal by grazing.

4. Wildlife

Under the Proposed Action, domestic livestock would continue to utilize vegetative resources needed by a variety of wildlife species for life history functions within this allotment. The magnitude of livestock grazing impacts on wildlife is minimal in this area. Cover habitat for wildlife would remain same as existing situation. Maintenance and operation of existing base waters would continue to provide dependable water sources for wildlife as well as livestock.

Vegetation condition, forage production, and habitat diversity may improve, and wildlife species distribution and abundance may remain static or possibly increase depending on the grazing management regime. The construction of livestock waters in previously un-watered areas would promote increased wildlife distribution and abundance, but may potentially increase grazing pressure in those same areas. Short-term impacts of range improvement projects would be the temporary displacement of wildlife species during possible range improvement construction activities.

Under the No Grazing Alternative, there would no longer be direct competition between livestock and wildlife for forage, browse and cover. Wildlife habitat would moderately improve. The limitation for improvement would continue to be the inability to control livestock use of the parcels because of the expense of segregating the lands with fencing, and legal access to administer isolated parcels of public land. Since livestock grazing would not be permitted, range improvement projects that benefit wildlife, such as water developments, would be abandoned. New range improvement projects that would also benefit wildlife habitat, such as brush control,

may not be implemented because these projects are primarily driven and funded through range improvement efforts.

5. Watershed – Hydrology

Livestock grazing management and range improvement projects can result in long-term and short-term alterations to the hydrologic regime. Peak flow and low flow of perennial streams, ephemeral, and intermittent rivers and streams would be directly affected by an increase in impervious surfaces resulting from the construction of the well pad and road. The potential hydrologic effects to peak flow is reduced infiltration where surface flows can move more quickly to perennial or ephemeral rivers and streams, causing peak flow to occur earlier and to be larger. Increased magnitude and volume of peak flow can cause bank erosion, channel widening, downward incision, and disconnection from the floodplain. The potential hydrologic effects to low flow is reduced surface storage and groundwater recharge, resulting in reduced baseflow to perennial, ephemeral, and intermittent rivers and streams. The direct impact would be that hydrologic processes may be altered where the perennial, ephemeral, and intermittent river and stream system responds by changing physical parameters, such as channel configuration. These changes may in turn impact chemical parameters and ultimately the aquatic ecosystem.

Long-term direct and indirect impacts to the watershed and hydrology would continue for the life of the livestock grazing management and range improvement projects and would decrease once reclamation of the range improvement projects has taken place. Short term direct and indirect impacts to the watershed and hydrology from access roads that are not surfaced with material would occur and would likely decrease in time due to reclamation efforts.

Under the Proposed Action rangeland monitoring would help ensure that adequate vegetation cover is maintained to protect the hydrologic regime. Low/moderate forage quality plants provide protection to the soils resource and hydrologic regime. Cumulative long-term monitoring data reflect the hydrologic regime is being adequately protected.

Under the No Grazing Alternative, any adverse impact from livestock grazing management and range improvement projects would be eliminated. However, it is possible that removing grazing animals from an area where they were a natural part of the landscape could result in poor use of precipitation and inefficient mineral cycling (Savory 1988). Bare soil could be sealed by raindrop impact, and vegetation could become decadent, inhibiting new growth. Therefore, the results of no grazing could be similar to those of overgrazing in some respects.

6. Water Quality Drinking/Ground:

Under the Proposed Action, direct impacts to surface water quality would be minor, short-term impacts during storm-flow. Indirect impacts to water-quality related resources, such as fisheries, would not occur. This proposed action would not have a significant effect on ground water. Livestock would be dispersed over these allotments, and soil would filter potential contaminants.

Under the No Grazing Alternative there could be a slight improvement in water quality due to minor reductions in sediment loading during storm-flow.

7. Air Quality:

Dust levels under the Proposed Action would be slightly higher than under the No Grazing Alternative due to allotment management activities. Levels would be within limits allowed in a Class II area for Prevention of Significant Deterioration of air quality.

8. Recreation:

Under the Proposed Action, grazing should have little or no impact on dispersed recreational opportunities within these allotments. Evidence or presence of livestock can negatively affect visitors who desire solitude, unspoiled landscape views, or to hike without seeing signs of livestock. However, grazing can benefit some forms or recreation, such as hunting, by creating new water sources for game animals.

Under the No Grazing Alternative, impacts would be very minor under this alternative. No positive impacts from livestock watering locations would occur.

9. Caves/Karst:

No known significant cave or karst features are known to exist on these allotments. There is a high potential that caves do exist in this area.

10. Non-native and Invasive species:

Currently, there are no known populations of noxious or invasive species found within boundaries of these allotments. Noxious and invasive species will take advantage of areas opened up by disturbance. This has generally been found where other native populations have been removed by some kind of soil surface disturbance, then followed by drought. Re-establishment of good vegetative cover provides competition for noxious species, reducing their success. Livestock will avoid grazing these plants as they may develop spines off of bracts below flowers, or are toxic, or have low palatability, making these plants very unattractive. Careful grazing management will reduce areas open to invasion. Grazing management will also provide early detection of new populations which may occur.

V. Public Land Health

Public Land (RHA) Rangeland Health Assessments were completed on these allotments in 2010. Based on these assessments and monitoring data, a Determination was made that public land within these livestock grazing allotments are in conformance with New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management. A copy of these assessments can be accessed at www.nm.blm.gov/rfo/index.htm.

VI. Cumulative Impacts

If the no livestock grazing alternative is selected, there would be little change in cumulative impact as long as surrounding allotments continue to be stocked at their current level. If permitted numbers are reduced on surrounding ranches as well, economics of surrounding communities and/or minority/low income populations would be negatively impacted.

The No Grazing alternative was considered, but not chosen in the Rangeland Reform Environmental Impact Statement (EIS) Record of Decision (ROD) (p. 28). Elimination of grazing in the Roswell Field Office Area was also considered but eliminated by the Roswell RMP/ROD (pp. ROD-2).

VII. Residual Impacts

Vegetative monitoring studies have shown that grazing, at current permitted numbers of animals, is sustainable. If mitigation measures are enacted, there would be no residual impacts to the proposed action.

VIII. Socio-Economic Impacts

A description of economic, social and cultural conditions by geographic region within New Mexico can be found in 2000 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management Final EIS. Impacts of authorizing grazing for these allotments under this Proposed Alternative on economic, social and cultural conditions of southeast New Mexico would be positive. On a smaller scale, impacts of authorizing grazing for these allotments, under the Proposed Action on economic, social and cultural conditions would also be positive.

IX. Mitigating Measures

Vegetation monitoring studies will continue to be conducted and permitted numbers of livestock will be adjusted if necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken at that time to mitigate those impacts.

IX. BLM Team Members

Randy Vinson- Rangeland Technician
Kyle Arnold - Rangeland Management Specialist
Howard Parman – Assistant Field Office Manager- Resources -Acting
Howard Parman – Planning & Environmental Coordinator
Adam Ortega – Rangeland Management Specialist
Helen Miller - Rangeland Management Specialist
Jerry Dutchover - Geologist
Rebecca Hill - Archeologist
Michael McGee - Hydrologist
Bill Murry – Recreation Planner
Dan Baggao – Wildlife Biologist

X. References

Bureau of Land Management and USDA Forest Service. 1994. Rangeland reform '94, draft environmental impact statement.

Bureau of Land Management. 1994. Roswell resource area draft resource management plan/environmental impact statement. BLM-NM-PT-94-0009-4410.

Bureau of Land Management. 1997. Roswell approved resource management plan and record of decision. BLM-NM-PT-98-003-1610. 71 pp.

Savory, A. 1988. Holistic Resource Management. Island Press. Washington, D.C.

USDA Soil Conservation Service. 1983. Soil Survey of Lincoln County Area, New Mexico. 218 pp.

Bureau of Land Management, Roswell Field Office
Environmental Assessment EA# DOI-BLM-NM-P010-2010-82-EA

Resources	Not Present on Site	No Impacts	May Be Impacts	Mitigation Included	BLM Reviewer	Date
Air Quality			X	X	SWA Spec/Hydro. /s/ Michael McGee	5/4/2010
Soil			X	X		
Watershed Hydrology			X	X		
Floodplains	X					
Water Quality - Surface			X	X		
Water Quality - Ground			X	X	Geologist/Hydrologist /s/ Michael McGee	5/4/2010
Cultural Resources	X				/s/Rebecca L. Hill Archaeologist	28Apr2010
Native American Religious Concerns	X					
Paleontology	X					
Areas of Critical Environmental Concern	X				/s/J H Parman Plan & Env. Coord.	3/31/10
Farmlands, Prime or Unique			x	x	Realty /s/Tate Salas	5/19/2010
Rights-of-Way			x	x		
Invasive, Non-native Species			X	X	/s/ Kyle Arnold Range Mgmt. Spec.	3/30/2010
Vegetation			X			
Livestock Grazing			X			
Wastes, Hazardous or Solid		X			/s/ Jared Reese Nat. Resource Spec.	3/29/2010
Threatened or Endangered Species	X				/s/ DBaggao Biologist	3/31/10
Special Status Species	X					
Wildlife			X			
Wetlands/Riparian Zones	X					
Wild and Scenic Rivers	X				/s/ Bill Murry Outdoor Rec. Plnr.	4/6/2010
Wilderness	X					
Recreation		X				
Visual Resources		X				
Cave/Karst		X				
Environmental Justice	X				/s/ Jared Reese Nat. Resource Spec.	3/29/2010
Public Health and Safety		X				
Solid Mineral Resources		X			/s/ Jerry Dutchover Geo/SPS	04/01/10
Fluid Mineral Resources	X				/s/ John S. Simitz geologist	4/1/2010